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TWO NEW ATLANTIC SCORPIONFISHES¹

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ABSTRACT: Two new species of scorpionfishes are described from the central Atlantic Ocean. *Scorpaenodes insularis* is known only from Saint Helena and *Scorpaena ascensionis* from Ascension Island. Descriptions and figures are given.

INTRODUCTION

The scorpionfishes of the Atlantic Ocean were the subject of recent studies by the author (Eschmeyer, 1965, 1969b). Examination of additional specimens in many museums has resulted in the discovery of two new species from isolated central South Atlantic islands. One, a species of the genus *Scorpaena* from Ascension Island (7°57' S, 14°22' W), was misidentified as *Scorpaena scrofina* in the *Discovery* reports (Norman, 1935). The second is a species of *Scorpaenodes* from the island of Saint Helena (15°57' S, 5°42' W). The most recent general study of the fishes of Saint Helena and Ascension was by Cadenat and Marchal (1963); they treated a total of 124 species, 96 from Saint Helena and 78 from Ascension, of which 50 occurred at both islands.

Methods follow those used earlier (Eschmeyer, 1969b).

The specimens of both species were found in the collection of the British Museum of Natural History, and thanks are due the BMNH staff, especially Alwyne Wheeler and Peter J. P. Whitehead, for courtesies extended during a visit there and for loaning the specimens for further study. Katherine Smith, Pearl Sonoda, Lillian Dempster, and Terry Arambula, California Academy of Sciences, assisted in the study. Maurice Giles did the photography for the illustrations. The drawings were made by Katherine Smith.

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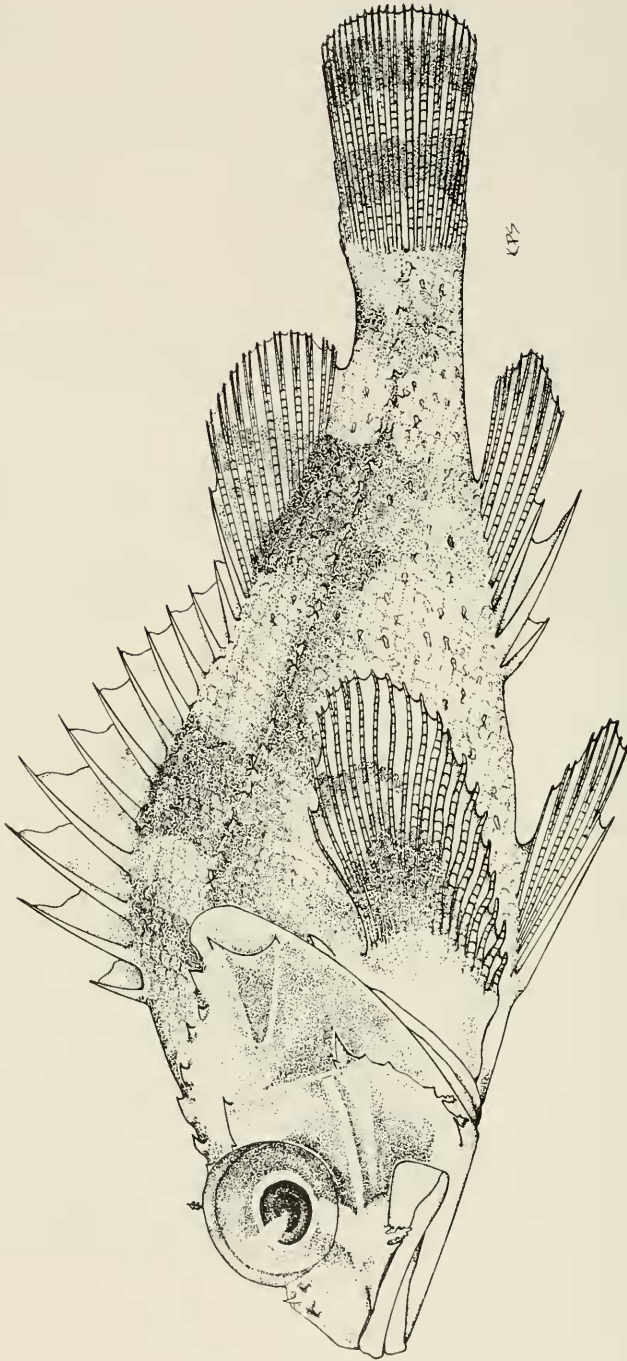


FIGURE 1. *Scorpaena ascensionis*, 34.6-37.5 mm. S.L., Ascension Island, drawing based mostly on the paratype.

Scorpaena ascensionis Eschmeyer, new species.

(Figure 1.)

Scorpaena scrofina, Norman, 1935, p. 55 (not of Valenciennes in Cuvier and Valenciennes, 1833; 2 specimens from Ascension Island).

REMARKS. The name "*scrofina*" has been used for one of the species of *Scorpaena* occurring at Saint Helena and Ascension. Eschmeyer (1969b, p. 59) included these records under the species *S. plumieri*. Norman (1935, p. 56, table) evidently was confused over the type locality of *S. scrofina*, since he shows *S. scrofina* to be restricted to Saint Helena and Ascension. The type locality of *Scorpaena scrofina* Valenciennes in Cuvier and Valenciennes, 1833, is Brazil, and the original description is clearly of a specimen referable to *S. plumieri*, a western Atlantic and eastern Pacific species which also occurs at Saint Helena and Ascension. The specimen in the Museum National d'Histoire Naturelle (MNHN 6702), which according to Blanc and Hureau (1968, p. 17) is the type of *S. scrofina*, is not the type. Now in bottle MNHN 6702, with the locality "Brazil," is a specimen of *Scorpaena laevis*, an eastern Atlantic species which does not agree in diagnostic color features with information in the original description of *S. scrofina*. It is likely that a switch of specimens occurred. In any event, *S. scrofina* is a synonym of *S. plumieri*, which does occur at Saint Helena and Ascension. The only other species of scorpionfishes known from either Saint Helena or Ascension are *Scorpaena mellissii* Günther (1868, p. 225, pl. 19) and *Pontinus nigropunctatus* (Günther, 1860, p. 145). *Synanceja horrida* has also been reported from Saint Helena (Günther, 1860, p. 145) and is represented by a dried specimen in the British Museum collection; I assume that the locality information for this Indo-Pacific species is probably in error. The new species is compared with the other species from Saint Helena and Ascension in the "Comparisons" section.

HOLOTYPE. BMNH 1935.5.2.33 (37.5 mm. S.L.) Ascension Island, *Discovery* Station 1, 16 November 1925, medium rectangular net, depth 16–27 meters.

PARATYPE. BMNH 1935.5.2.34 (33.6 mm. S.L.) same data as holotype.

DESCRIPTION. A small species with the following distinguishing features: very shallow occipital pit, cycloid scales, about 60 vertical scale rows, chest and pectoral-fin base scaled, and two preorbital spines over maxillary. Dorsal fin with 12 spines and 9 soft rays (last double). Anal fin with 3 spines and 5 soft rays (last double). Pectoral fin with 20 rays, rays 3 through 4 or 5 branched distally; pectoral fin reaching to over the first or second anal spine. Gill rakers including rudiments 14–15, 5 on upper arch, 9–10 on lower arch; all gill rakers fairly short, the upper 4 and most lower ones as rudiments. Preorbital bone with 2 spines over maxillary; anterior spine directed forward, posterior spine to rear. Suborbital ridge without spinous points. Supplemental preopercular spine pres-

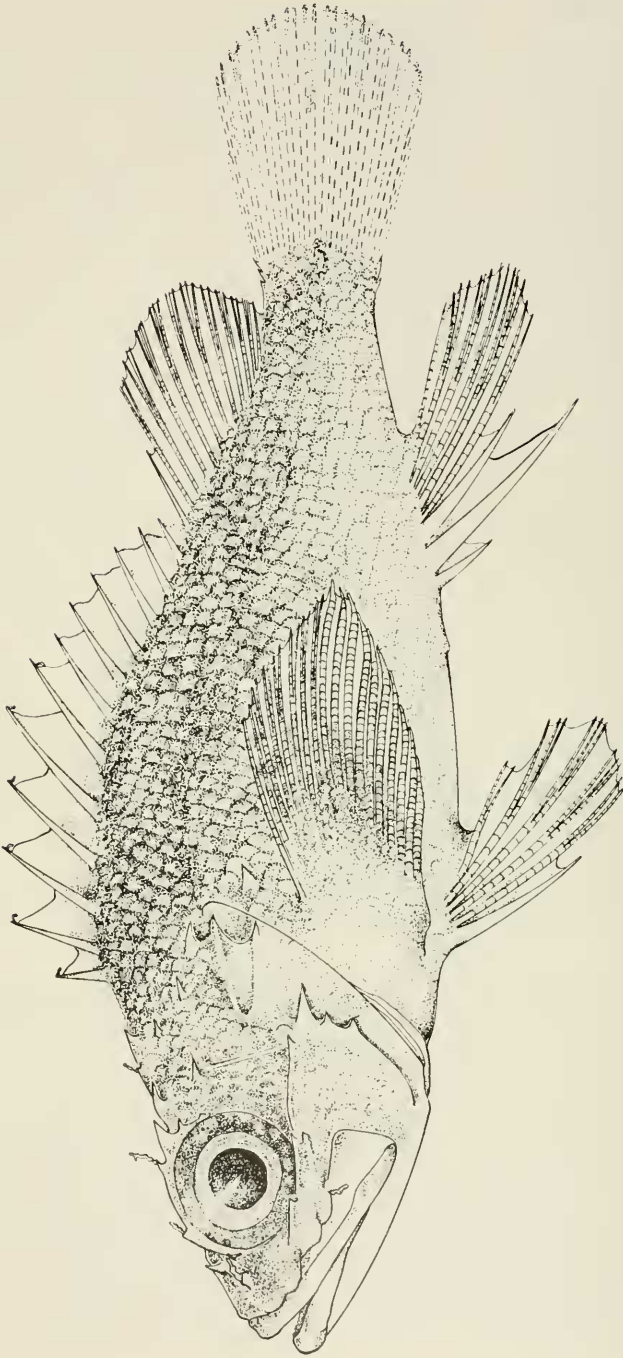


FIGURE 2. *Scorpaenodes insularis*, holotype, 54.7 mm. S.L., Saint Helena (much of caudal fin missing in specimen).

ent, slightly dorsal to first preopercular spine. First preopercular spine short; second through fourth preopercular spines present, about one-half length of first; fifth preopercular spine very small and covered by a dermal flap. Other spines present typical for the genus *Scorpaena* (Eschmeyer, 1969b, fig. 1, and p. 54) and include the following: nasal, preocular (low), supraocular, postocular, tympanic, parietal, nuchal, pterotic, sphenotic, upper and lower posttemporal, supra-cleithral, and cleithral. Most spines low, short, and frequently blunt. Vertebrae 24. Scales on sides cycloid or slightly emarginate; vertical scale rows about 60 (about 58–62 in available material, some scales rubbed off); lateral-line scales 26 + 2; chest, pectoral-fin base, postorbital area of head, opercle, and cheek with cycloid scales. Tentacles and skin flaps on head and body short; small supra-ocular tentacle less than about one-tenth orbit diameter; short flaps on some lateral-line scales and body scales; a few small flaps on eye, on preopercular spines, and on posterior preorbital spine.

Measurements in millimeters are as follows (paratype in parentheses; holotype with upper jaw slightly distended thereby affecting some measurements): total length 37.5 (33.6); head length 17.9 (15.7); body depth 11.8 (12.0); orbit diameter 5.9 (5.0); snout length 4.0 (4.0); interorbital width 1.8 (1.6); jaw length 8.2 (8.0); predorsal fin length 15.5 (13.6); length third dorsal spine 6.6 (5.5); length first anal spine 3.3 (2.7), second 7.0 (5.9) and third 5.5 (5.4); length pectoral fin 11.1 (10.3); length pelvic fin 9.7 (8.6); length caudal fin 10.7 (10.1).

Body shape and coloration as in figure 1. Axil of pectoral fin with no distinctive color pattern, mostly pallid, a few brown spots.

The holotype is a gravid female. It is likely that the species does not exceed about 50 mm. in total length.

DISTRIBUTION. The species is known only from Ascension Island.

COMPARISONS. *Scorpaenodes insularis*, *Pontinus nigropunctatus*, *Scorpaena mellissii*, *S. plumieri*, and *S. ascensionis* constitute the scorpionfishes known from Saint Helena and Ascension. The first three are known only from Saint Helena. *Scorpaena plumieri* occurs at both islands, and *S. ascensionis* is known only from Ascension. Information on *P. nigropunctatus*, *S. plumieri*, and *S. mellissii* may be found in Eschmeyer (1969b). *Scorpaenodes insularis* can be separated on the basis of 13 dorsal spines and no palatine teeth. *Scorpaena plumieri* is most easily characterized by the presence of large white spots on a black background in the axil of the pectoral fin. *Pontinus nigropunctatus* is a large species characterized by no branched pectoral rays. *Scorpaena mellissii* is easily distinguished on the basis of coloration, especially in the lack of bars on the body and the presence of scattered dark brown spots on the fins (see Günther, 1868, pl. 19). *Scorpaena ascensionis* may be separated on the basis of coloration (fig. 1) and, unlike the other species above, it has no spinous points on the

suborbital ridge. *Scorpaena ascensionis* does not seem to be especially closely related to any other species of the genus *Scorpaena*.

NAME. The specific name "*ascensionis*" has been used several times in other families of fishes. It is unlikely that the present species of *Scorpaena* will occur elsewhere, with the possible exception of Saint Helena; so this geographical name is a meaningful one, and is used for the present species.

***Scorpaenodes insularis* Eschmeyer, new species.**

(Figure 2.)

HOLOTYPE. BMNH 1969.3.10.9 (54.7 mm. S.L.) South Atlantic Ocean, Saint Helena Island, James Bay, wreck of *Papanu*, collected June 1968, presented by A. Loveridge.

DESCRIPTION. A species of *Scorpaenodes* characterized by 3 spines on the suborbital ridge, another spine below the main suborbital ridge, pectoral rays 18–19, total gill rakers 17–18, normally (?) 10 soft dorsal rays, interorbital spines present, and no dark spot at end of spinous dorsal fin. Dorsal fin with 13 spines and 10 soft rays (last double). Anal fin with 3 spines and 5 soft rays (last double). Pectoral fin with 18 (left) or 19 (right) rays, rays 3 through 8 or 9 branched in available specimen. Gill rakers including rudiments 17–18, 6 on upper arch, 9 on ceratobranchial and 2–3 flat rudiments on hypobranchial. Preorbital bone with 2 lobes over maxillary, posterior one as a broad spine. Suborbital ridge with 3 spinous points, first on preorbital, second below posterior part of eye, and third at end of ridge. Supplemental preopercle spine as a lump on base of first preopercular spine; first through third preopercular spines present, fourth and fifth absent. Interorbital spines present; coronal (post-frontal) spines present on right side; upper posttemporal spines absent; nasal spines present; spine on extrascapular bone present. Other spines present typical for the genus *Scorpaenodes* (Eschmeyer, 1969a, p. 4; 1969b, pp. 85–86, fig. 1) and include the following: preocular, supraocular, postocular, tympanic, parietal, nuchal, sphenotic, lower posttemporal, opercular (2), supracleithral, and cleithral. Vertebrae 24. Scales on sides slightly ctenoid; vertical scale rows about 47; lateral-line scales 23 + 2; chest, pectoral-fin base, lower portions of fins, and most of head scaled. Tentacles and skin flaps inconspicuous; short, simple tentacles associated with most head spines.

Measurements in millimeters are as follows: total length 64.5, caudal damaged distally; head length 22.8; body depth 17.3; orbit diameter 6.7; snout length 5.3; interorbital width 2.5; jaw length 10.8; predorsal fin length 20.6; length fourth dorsal spine 7.0; length first anal spine 4.5, second 11.8, and third 8.5; length pectoral fin 16.0; length pelvic fin 15.7.

Body shape and coloration as in figure 2. Body with brown patches and spots on a pale background. Head mostly dusky. Dorsal and pectoral fins faintly spotted with brown.

DISTRIBUTION. The species is known only from the island of Saint Helena.

COMPARISONS. *Scorpaenodes insularis* is compared with other species from Saint Helena and Ascension in the account of *Scorpaena ascensionis*. Comparison with eastern and western Atlantic species may be made by consulting Eschmeyer (1969b: pp. 86–91). *Scorpaenodes insularis* most resembles *S. africanus* in coloration, but *S. insularis* has 3 spines on the suborbital ridge while *S. africanus* has 2 (usually a stable feature). Also, *S. insularis* has a spine present under the main suborbital ridge while *S. africanus* does not. The soft dorsal ray count of $10\frac{1}{2}$ for *S. insularis* may be one more ray than normal; most species of *Scorpaenodes* normally have $9\frac{1}{2}$, and some $8\frac{1}{2}$.

NAME. The specific name is based on the Latin adjective “*insularis*,” of an island, alluding to the occurrence of this species at the island of Saint Helena.

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